REVIEW OF BEHAVIOR ANALYSIS IN DEVELOPMENTAL DISABILITIES 1968–1995 (3RD ED.), EDITED BY IWATA ET AL.

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The third edition of *Behavior Analysis in* Developmental Disabilities expands and updates the contributions of behavior analysis to the field of developmental disabilities. The six distinguished senior behavior analysts who have taken on the daunting task of selecting key articles from the 27-year history (1968-1995) of the Journal of Applied Behavior Analysis (JABA) have assembled a volume that will be of great value as a primary or supplementary text in courses on behavior analysis. Since its inception, JABA has had a special relationship with developmental disabilities. Although IABA publishes and promotes behavior-analytic research in an array of fields, articles that address issues in developmental disabilities have predominated. The third edition includes 70 articles that trace developments in our understanding of basic mechanisms of human behavior and application of these mechanisms to improve the lives of people with disabilities. The articles are organized around 13 topics, with five to eight articles per topic.

The purpose of the volume is to provide a text that pulls together nearly three decades of research on issues related to developmental disabilities. The editors have wisely retained classic articles that provide a foundation and historical perspective for this body of knowledge (e.g., Baer, Wolf, & Risley, 1968; Stokes & Baer, 1977). They have also attended to the immense developments and contributions that have occurred since publication of the second edition in 1988. Over two thirds of the articles and four topic sections are new to the third edition. Of particular note are articles that document advances in reinforcer assessment, generalization, instructional technology, functional assessment, and treatment of severe behavior disorders. Together, the articles provide an accessible vision of a field that has both struggled to understand the lawful relationships between behavior and environment and applied this knowledge to make substantive improvement in the lives of people with disabilities.

Children and adults with developmental disabilities present an array of challenges. The articles in this third edition trace a behavior-analytic response to these challenges. Early papers focus on defining procedures for describing and measuring patterns of behavior and on strategies for defining functional relationships between environmental events and changes in behavior. Our understanding of basic principles has allowed attention to the key questions facing children and adults with developmental disabilities: How do we organize and teach skills to people who have difficulty learning? How do we identify and deliver reinforcers that maintain adaptive behavior? How do we arrange instruction so that isolated skills transform into durable, generalized patterns of vocational,

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self-help, academic, leisure, and community-relevant competence? The behavioral response to these challenges is apparent in this volume. Understanding the lawful relationships among environmental events has led us to a better understanding of basic learning processes and the features of environments that will promote adaptive behavior. We learn from these papers that people who have difficulty learning require exemplary instruction and support. Weak, disjointed, or unorganized teaching may still result in learning with highly skilled students, but poor teaching and support do not result in productive gains in the behavior of children with autism and other developmental disabilities. We must learn to teach well, and the papers in this volume provide examples of excellent instruction.

A special feature of the present volume is the emphasis on advances in functional analysis of problem behavior and the development of treatments based on those analyses. Of the 568 articles reviewed for possible inclusion in this volume, 161 (28%) address assessment and treatment of severe problem behavior. Gains in this area have been especially important and stand as one of the major contributions of applied behavior analysis to the field of developmental disabilities.

This third edition also defines a trend line for the future contributions of behavior analysis to developmental disabilities. The seminal article by Baer et al. (1968) that opens the monograph laid out the challenge for a truly applied analysis of behavior. The challenge was to understand and apply behavioral principles to real-world problems. The field was encouraged to study the behavior of real people in real settings. The selection of "convenient" subjects was discouraged. The field was encouraged to focus on important elements of human behavior and to demonstrate

change that was socially important. The present monograph presents research that has met much of the initial challenge and lays solid groundwork for taking the technology to the next level. A reader is impressed not only with the important contributions that have occurred over the past 30 years but also with the contributions that have occurred over the past 10 years. We have learned how (a) to define and measure behavior, (b) to identify reinforcers, (c) to teach adaptive behavior, (d) to intervene to reduce problem behavior, and (e) to build the skills of families, teachers, and providers to use effective behavioral procedures. These accomplishments stand as a tremendous asset as we look toward the research that will likely characterize the next edition of this volume.

Among the most important contributions of the monograph is the set of expectations it creates for the future. At least three trends seem likely. The first is a continued focus on defining the fundamental mechanisms that underlie human behavior. A comforting feature of the present monograph is the consistent presence of common behavioral principles across studies that have examined diverse aspects of human behavior (self-care, leisure, academic performance, vocational skills, health and safety, and behavior disorders). The monograph exemplifies a clear commitment to further understanding not only what people do but why they do it. Current efforts to clarify the role of establishing operations, extinction, and equivalence classes will be just a few of the new pieces of basic knowledge we can expect in future editions. The field grows not only by expanding the application of known principles to new areas (eating disorders, sleep disorders) but also by expanding the very principles used to understand behavior. Children with disabilities and their families are

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teaching us a great deal about the fundamental laws of human behavior.

A second trend implied in the monograph is continued movement toward meeting the challenge to make the analysis of behavior applied. Our present knowledge has been gained largely through careful analysis of small units of behavior in controlled contexts over short time periods (e.g., 15-min sessions). Behavior, however, is a continuous stream, and if we are to realize the promise of applied behavior analysis for people with disabilities, we need to extend our technology to 24-hr cycles; to real home, school, community, and work environments; and to the mucky contingencies of the real world. The research in this third edition provides the needed foundation for adding complexity to our science. Current procedures will continue to be of tremendous value, but we may also expect research that examines interaction effects (e.g., multicomponent interventions, setting events), multilevel assessment procedures, and an expanded class of outcome measures (e.g., friendships, generalized reduction of problem behavior, durable application of adaptive skills, self-management, reduction of need for external support, change in activity patterns, and improved health and safety). The articles in Behavior Analysis in Developmental Disabilities 1968-1995 indicate an impressive foundation of knowledge that must now be applied to produce substantive, durable change in the lives of people with disabilities. To extend our technology and knowledge to this challenge will require attention to larger units of behavior, analysis of interactions that occur when multiple interventions are applied together, and recognition that larger social systems (schools, communities, administrative structures) affect the extent to which effective behavioral procedures can be applied. Applied behavior analysis is a pragmatic field with

pride in producing "large enough effects for practical value" (Baer et al., 1968, p. 96). The articles in the third edition set the occasion for expanding the size and scope of the variables we study as we try to achieve this expectation.

The third edition also portends an expansion of our research methodology. The careful, rigorous attention to measurement of behavior and experimental design will continue to be the hallmark of applied behavior analysis. But just as our analysis of more simple behavioral units began with careful description and correlation, so will our initial efforts to understand more complex behavioral units include careful description and correlation. New research designs will be needed to assess the complex interactions encountered in real environments. We have taken the stream of behavior and looked with great care at those droplets we call operants. Continued attention to the microlevel of behavior is warranted, but as the breadth and depth of our analysis expand, so will the tools we use for that analysis. *IABA* will serve as an appropriate home for careful analysis of new research directions. Some new ideas will prove fruitful, and some will not. Our ability to move forward will be determined by both our openness to considering novel approaches and our collective scrutiny to ensure that these approaches are experimentally and pragmatically sound.

The net effect is that the third edition of *Behavior Analysis in Developmental Disabilities* is a monumental contribution. The behavior analysts who contributed articles in this volume have made enormous contributions to both the science of behavior analysis and the field of developmental disabilities. Similarly, the editors of the third edition have made a major contribution through their synthesis of this knowledge. The editors offer readers a clear picture of our heritage, recent contribu-

tions, and a vision for future advances. This clearly is a job well done.

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